

MECHANICAL EQUIPMENT SCHEDULE																					
EQUIPMENT			ELECTRICAL CHARACTERISTICS			PACKAGED UNIT	STARTER				CONTROLS				FIRE ALARM SHUTDOWN	DRIVE ISOLATION TRANSFORMER	CIRCUITRY INFORMATION				NOTES
ITEM	DESCRIPTION	LOCATION	HP/kW	AMPS	VOLTS/φ		TYPE	HOA	PILOT LIGHT	PUSH BUTTON	SUPPLIED BY	TYPE	SUPPLIED BY	INSTALLED BY			WIRED BY	PANEL-CCT #	O.C.P.	WIRE	
AHU-09	AIR HANDLING UNIT SUPPLY FAN	PENTHOUSE	7.5 HP	9.0	600/3φ	X	VFD			MECHANICAL				ELECTRICAL	X	40kVA	CDP-900 LOCATED IN BASEMENT ELECTRICAL ROOM. REFER TO NOTE #10.	90A-3P	3-1/C #4AWG TECK90 Cu.	-	PROVIDE SEPARATE 15A, 120V/1φ CIRCUIT FOR AIR HANDLING UNIT LIGHTS AND PLUGS. WIRE AND CONNECT TO PANEL 'PB'.
	AIR HANDLING UNIT SUPPLY FAN	PENTHOUSE	7.5 HP	9.0	600/3φ																
	AIR HANDLING UNIT SUPPLY FAN	PENTHOUSE	7.5 HP	9.0	600/3φ																
AHU-13	AIR HANDLING UNIT EXHAUST FAN	PENTHOUSE	7.5 HP	9.0	600/3φ	X	VFD			MECHANICAL				ELECTRICAL	X	40kVA	CDP-400 LOCATED IN ROOM 283. REFER TO NOTE #11.	90A-3P	3-1/C #4AWG TECK90 Cu.	-	PROVIDE SEPARATE 15A, 120V/1φ CIRCUIT FOR AIR HANDLING UNIT LIGHTS AND PLUGS. WIRE AND CONNECT TO PANEL 'PB'.
	AIR HANDLING UNIT EXHAUST FAN	PENTHOUSE	7.5 HP	9.0	600/3φ																
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**NOTES:**

- DIVISION 26 SHALL REFER TO MECHANICAL DRAWINGS FOR EXACT MOTOR LOCATIONS. CONFIRM ACTUAL EQUIPMENT RATINGS, SIZES AND LOCATIONS PRIOR TO ROUGHING-IN OF WIRING AND CIRCUIT BREAKERS. SIZE OVERLOADS ACCORDINGLY. REPORT ANY DISCREPANCIES OR SUBSTITUTIONS TO DEPARTMENTAL REPRESENTATIVE PRIOR TO WIRING INSTALLATION AND CONNECTIONS. (REFER TO ACTUAL EQUIPMENT NAMEPLATES.)
- ALL CONTROL WIRING FOR MECHANICAL ITEMS SHALL BE PROVIDED BY DIVISION 23 UNLESS OTHERWISE. REFER TO MECHANICAL SPECIFICATIONS.
- ALL STARTERS TO BE SUPPLIED AND INSTALLED BY DIVISION 26 UNLESS OTHERWISE NOTED.
- PROVIDE DISCONNECT SWITCHES FOR EQUIPMENT AS REQUIRED BY CODE.
- PROVIDE 120V, 15A CIRCUIT FOR EACH DDC PANEL. REFER TO MECHANICAL DRAWINGS FOR QUANTITY AND LOCATION.
- RE-WIRE AND RE-CONNECT AIR HANDLING UNIT INTERNAL POWER CONNECTIONS AS A RESULT OF DISASSEMBLY DURING SHIPPING.
- PROVIDE SEPARATE DRIVE ISOLATION TRANSFORMER FOR EACH VFD. VFD'S ARE SUPPLIED AND INSTALLED BY DIVISION 23. LINE VOLTAGE WIRED AND CONNECTED BY DIVISION 26. INSTALL DRIVE ISOLATION TRANSFORMER ADJACENT TO VFD, CONFIRM LOCATION WITH DIVISION 23 PRIOR TO ROUGHING-IN. PROVIDE ALL NECESSARY MOUNTING HARDWARE AS REQUIRED.
- ALL MOTORS USING VFD'S TO BE WIRED WITH VFD (VARIABLE FREQUENCY DRIVE) CABLE. INSTALL DRIVE CABLE FROM VFD TO MOTOR ONLY.
- ALL MOTOR DISCONNECT SWITCHES SERVING MOTORS WITH VFD'S TO BE INTERLOCKED TO PROVIDE CONTROLLED SHUTDOWN OF VFD WHEN DISCONNECT SWITCH IS SHUT OFF.
- WIRE AND CONNECT NEW AHU-9 TO EXISTING CDP-900 LOCATED IN BASEMENT MAIN ELECTRICAL ROOM USING 3-1/C#4AWG TECK90 Cu. SUPPLY AND INSTALL NEW 90A-3P CIRCUIT BREAKER IN CDP. EXISTING 70A-3P CIRCUIT BREAKER TO REMAIN AS FUTURE SPARE. CONFIRM FINAL ROUTING OF WIRING ON SITE WITH DEPARTMENTAL REPRESENTATIVE. NEW CIRCUIT BREAKER TO MATCH EXISTING CDP INTERRUPTING CAPACITY. CONFIRM EXISTING ON SITE.
- WIRE AND CONNECT NEW AHU-13 TO EXISTING CDP-400 LOCATED IN ROOM 283 USING 3-1/C#4AWG TECK90 Cu. SUPPLY AND INSTALL NEW 90A-3P CIRCUIT BREAKER IN CDP. EXISTING 50A-3P CIRCUIT BREAKER IN EXISTING MCC#3 TO REMAIN AS FUTURE SPARE. NEW CIRCUIT BREAKER TO MATCH EXISTING CDP INTERRUPTING CAPACITY. CONFIRM EXISTING ON SITE.

**LEGEND:**

- STARTERS**  
MAG = MAGNETIC STARTER  
VFD = VARIABLE FREQUENCY DRIVE  
MAN = MANUAL STARTER  
TOG = MOTOR RATED TOGGLE SWITCH  
CON = CONTACTOR  
HOA = HAND-OFF-AUTO
- CONTROLS**  
T'STAT. = THERMOSTAT  
H'STAT. = HUMIDISTAT  
EMCS = ENERGY MANAGEMENT CONTROL SYSTEM  
TC = TIME CLOCK  
MT = MANUAL TIMER  
MS = MANUAL SWITCH  
VSC = VARIABLE SPEED CONTROLLER  
APS = AIR PROVING SWITCH  
COO = CARBON MONOXIDE DETECTOR  
FA = FIRE ALARM INTERLOCK  
AUTO = INTEGRAL AUTO SWITCH ACTIVATION  
FLOAT = FLOAT SWITCH
- FIRE ALARM SHUTDOWN**  
INTERLOCK SMOKE DUCT DETECTOR TO FIRE ALARM PANEL AND POWER OF MECHANICAL EQUIPMENT FOR SHUTDOWN. DUCT DETECTOR AND SHUTDOWN ON SEPARATE ZONE

PANELBOARD DIRECTORY 'EXISTING PANEL SBC'							
ITEM	LOAD (kW)	OCB	C	ITEM	LOAD	OCB	
EXISTING BREAKER TO REMAIN AS FUTURE SPARE		40A 3P	1	2	ROW 1 SPOTS AND STRIPS	0.88	15A
			3	4	ROW 2+4 STRIPS	0.864	15A
			5	6	ROW 3 SPOTS AND STRIPS	0.88	15A
EXISTING BREAKER TO REMAIN AS FUTURE SPARE		40A 3P	7	8	ROW 5 SPOTS AND STRIPS	0.88	15A
			9	10	ROW 6 STRIPS	0.432	15A
			11	12	ROW 7 SPOTS AND STRIPS	0.88	15A
CONTROL ROOM/FIRING LINE LTS	0.597	15A	13	14	EBB-1	0.07	15A
EBB-2	0.07	15A	15	16	EBB-3	0.07	15A
LANE 1	1.5	20A	17	18	LANE 2	1.5	20A
LANE 3	1.5	20A	19	20	LANE 4	1.5	20A
LANE 5	1.5	20A	21	22	LANE 6	1.5	20A
REC'S (x4)	0.8	15A	23	24	TARGETING CONTROL DESK	1.0	15A
TARGETING SYSTEM PANEL	1.0	15A	25	26	LIGHTING CONTROL PANEL	1.0	15A
			27	28			
			29	30			
			31	32			
			33	34			
			35	36			
			37	38			
			39	40			
			41	42			

NOTES:  
1. EXISTING 15A-1P CIRCUIT BREAKERS NO LONGER REQUIRED TO BE REUSED FOR NEW LOADS  
2. EXISTING 40A-3P CIRCUIT BREAKERS NO LONGER REQUIRED TO REMAIN AS FUTURE SPARE.

MOUNTING: SURFACE  
RATING: 225A, 120/208V/3φ/4W

**PRELIMINARY**  
NOT FOR CONSTRUCTION

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**APEGM**  
Certificate of Authorization  
HDK Consulting Incorporated  
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Revision	Description	Date
5		
4		
3		
2	ISSUED FOR CONSTRUCTION	FEB 23/15
1	ISSUED FOR 99% REVIEW	DEC 22/14
0	ISSUED FOR 50% REVIEW	OCT 20/14

**ROYAL CANADIAN MOUNTED POLICE D-DIVISION**  
1091 PORTAGE AVENUE  
WINNIPEG, MANITOBA

**WINNIPEG, MANITOBA**  
1091 PORTAGE AVENUE  
D-DIVISION HEADQUARTERS  
**FIRING RANGE UPGRADE**

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Drawing title / Titre du dessin  
**ELECTRICAL SCHEDULES**

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